LISTING OF THE CLAIMS

Claims 1- 10 (cancelled).

11. (Withdrawn) An Internet telephone switch, comprising:

means for switching data from a first channel on a first switched virtual circuit/switched virtual path to a second channel on a second switched virtual circuit/switched virtual path; and

means for stripping headers from IP traffic using out-of-band signaling.

12. (Withdrawn) The Internet telephone switch of claim 11, further comprising means for converting data among a TCP/UDP/IP network, an AAL2 ATM network, and an AAL5 ATM network.

13. (Cancelled)

14. (Cancelled)

15. (Withdrawn) An multiprotocol convergence switch comprising:

at least one protocol stack;

at least one data transfer layer; and

at least one multiprotocol convergence switch controller for enabling a first telephone to connect to at least one other telephone using a single virtual circuit and for managing communications with an external call agent.

16. (Withdrawn) The multiprotocol convergence switch of claim 15, wherein the protocol stack comprises:

a UDP/IP stack; and

an ATM stack.

17. (Withdrawn) The multiprotocol convergence switch of claim 16 wherein the ATM stack comprises at least one layer selected from the group consisting of an AAL2 layer and an AAL5 layer.

18. (Withdrawn) The multiprotocol convergence switch of claim 17 wherein data received from an AAL5 stack user is passed to the AAL5 data transfer layer and data received from an AAL2 stack user is passed to the AAL2 data transfer layer.

19. (Withdrawn) The multiprotocol convergence switch of claim 15 wherein the data transfer layer includes at least one data transfer element.

20. (Withdrawn) The multiprotocol convergence switch of claim 15 wherein the switch controller comprises:

a call agent communication element;

a UDP signaling element;

an ATM signaling element; and

a routing table.

21. (Withdrawn) A packet switched Internet telephone network comprising:

a first multiprotocol convergence switch;

at least a second multiprotocol convergence switch;

at least one external call agent associated with each multiprotocol convergence switch for controlling the respective multiprotocol convergence switch; and

at least a first ATM virtual circuit connecting the first and second multiprotocol convergence switches.

22. (Cancelled)

23. (Withdrawn) A method of header stripping comprising:

receiving, on a first input UDP port, a packet comprising a header and data;

using a first multiprotocol convergence switch to find, in a first routing table, a first output UDP port associated with the first input UDP port;

using the first multiprotocol convergence switch to strip the header from the packet;

storing the header within a call setup message;

sending the call setup message to a second multiprotocol convergence switch;

saving a header in a second routing table associated with said second multiprotocol convergence switch, using the information in said call setup message;

using the first multiprotocol convergence switch to write the data to the first output UDP port;

receiving the data at the second multiprotocol convergence switch on a second input UDP port associated with the first output UDP port;

using the second multiprotocol convergence switch to retrieve the header from the second routing table;

using the second multiprotocol convergence switch to find, in the second routing table, a second output UDP port;

adding the header from the second routing table to the data to reconstitute the packet; and

writing the packet to the second output UDP port.

24. (Withdrawn) The method of claim 23 further comprising:

using the second multiprotocol convergence switch to increment a packet ID and to recalculate a checksum associated with the header to generate a new header; and

placing the new header in the second routing table.

25. (Withdrawn) A method for header stripping in a switched packet network, comprising:

establishing a first connection for transmitting a data flow comprising at least one data packet, the data packet including data, a header, and an ID;

terminating the data flow into the packet-switched network at an ingress point;

determining a destination of the data packet;

determining a route through the network from the ingress point to the data packet destination;

establishing a second connection comprising an AAL2 trunk from the ingress point to an egress point;

establishing a third connection from the egress point to a data packet destination;

stripping the header from the data packet;

passing the header to the egress point;

placing the header in a routing table such that it is associated with the selected route;

sending the data packet to the egress point;

retrieving the header from the routing table in accordance with the route by which the egress point receives the data packet;

reattaching the header to the data packet; and

transmitting the data packet to the destination.

26. (currently amended) A method for providing a quality of service-based packet switched network to effect Internet telephony and other forms of communication, comprising the steps of:

providing a multi-protocol convergence switch (MPCS) for enabling an endpoint such as a telephone to connect to every other endpoint within said packet switched network through the Internet using: ;

a virtual circuit (VC) from an originating endpoint to an ingress MPCS;

a virtual private network (VPN) between two or more MPCSs;

a virtual circuit (VC) from an egress MPCS to a destination endpoint,

wherein

said VCs are comprised of any protocol, including any of;

MPLS;

TCP/IP;

UDP/IP;

ATM AAL2; and

ATM AAL5;

said VPN comprising of one or more virtual trunks (VT), each VT connecting two MPCSs;

wherein said VTs are comprised of any protocol, including any of;

MPLS;

TCP/IP;

UDP/IP;

ATM AAL2; and

ATM AAL5;

wherein said VTs differ from each other VT on at least any of ~~many~~ the following characteristics~~, including any of;~~ :

quantity of reserved bandwidth;

Quality of Service (QoS);

cost;

time and date of creation; and

duration of existence;

wherein said VPN is comprised of multiple VTs, each VT being of a different protocol type and having different characteristics;

wherein said VPN exists independently of said VC in any of the following ways;

in time where the existence of a VT does not depend on the existence of any VC and vice versa; wherein a VT can be created before any VCs exist, a VT can be destroyed while VCs remain in existence and a VC can be destroyed while all VTs remain in existence;

on protocols where any VT may be of a different protocol than any VC; and the overall VPN may support the same protocol as any VC;

connecting originating and destination endpoints by steps of:

when a telephone call is made, sending said call to a telephone's associated ingress MPCS via ~~said~~ a VC;

said ingress MPCS determining on which VT said call should be routed based on factors including any of:

intended destination;

required QoS;

required bandwidth;

cost of VT usage including any of cost of VT QoS and bandwidth; and

type of VT and VC protocols;

sending said call through said VPN via a selected VT to a destination egress MPCS;

said egress MPCS, in turn, sending said call to a destination telephone through a VC associated with said destination telephone;

said MPCS straddling an edge network and a core network, said core network comprising said VPN that carries traffic from one edge network to another edge network, said edge network comprising of said VCs. ;

recognizing communications quality and delivery requirements for a class of services; and

choosing a best form of transport for a call based on class of service;

wherein said classes of service comprise at least any of the following protocols:

MPLS,

TCP/IP,

UDP/IP,

ATM,

AAL2, and

AAL5.

27. (currently amended) The method of Claim 26 said MPCS further performing the steps of:

converting data from said edge network VC protocol to said core network VT protocol and *vice versa* if necessary, including any of:

converting data from TCP/UDP/IP to MPLS and *vice versa*;

converting data from TCP/UDP/IP to AAL2 and *vice versa*;
converting data from TCP/UDP/IP to AAL5 and *vice versa;*
converting data from AAL5 to AAL2 and *vice versa*;
converting data from AAL5 to MPLS and *vice versa;*
converting data from AAL2 to MPLS and *vice versa;*
switching data from an AAL2 channel on a virtual circuit (VC)/virtual path (VP) to a different AAL2 channel on a different VC/VP;

performing headerstripping on IP traffic; and

enabling preprovisioning of core network VTs, wherein VTs are set up in advance of, and independent of, any edge network VC and are selected by an MPCS or associated call agent when needed for a call;

enabling management of the core VPN independent of any edge network VC, wherein core network VTs comprising the core VPN can be created, modified, and destroyed without regard for the existence and state of the edge network VCs.